

THE FACTORS INFLUENCING CUSTOMERS SATISFACTION TO USE SELF-  
CHECKOUT KIOSK IN WATSONS DURING COVID-19 ENDEMIC



Faculty of Technology Management and Technopreneurship  
UNIVERSITI TEKNIKAL MALAYSIA MELAKA (UTeM)

THE FACTORS INFLUENCING CUSTOMERS SATISFACTION TO USE SELF-  
CHECKOUT KIOSK IN WATSONS DURING COVID-19 ENDEMIC

NURFAZIRAH BINTI MUSLIMIN



اونيورسيتي تيمكنيكل ايسيا ملاك  
This Thesis Is Submitted in Partial  
Fulfilment of The Requirements for The Award of Bachelor of Technology Management  
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(Technology Innovation) With Honours

Faculty of Technology Management and Technopreneurship  
UNIVERSITI TEKNIKAL MALAYSIA MELAKA (UTeM)

JAN 2023

## APPROVAL

‘I hereby declare that I have read and go through this dissertation/report/thesis and certify that, this dissertation/report/thesis is satisfactory in the sense of scope and quality as a partial fulfilment the requirements for the award of Bachelor of Technology Management (Innovation) with Honours and will submitted to the Universiti Teknikal Malaysia Melaka.’



SUPERVISOR'S SIGNATURE : .....

SUPERVISOR NAME : TS DR. Nurulizwa Binti Abdul Rashid

DATE : 30 January 2023



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PANEL'S SIGNATURE : .....

PANEL NAME : Pn. Nor Ratna Binti Masrom

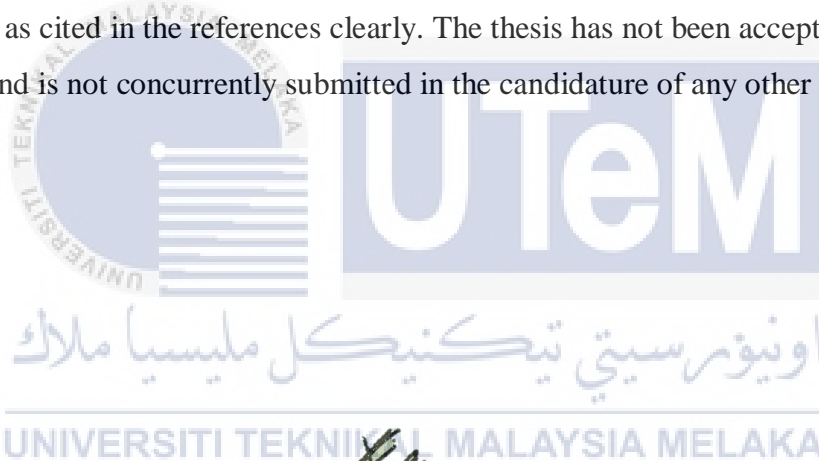
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CHECKOUT KIOSK IN WATSONS DURING COVID-19 ENDEMIC”**

is the result of my personal study except with the explanations or information from other  
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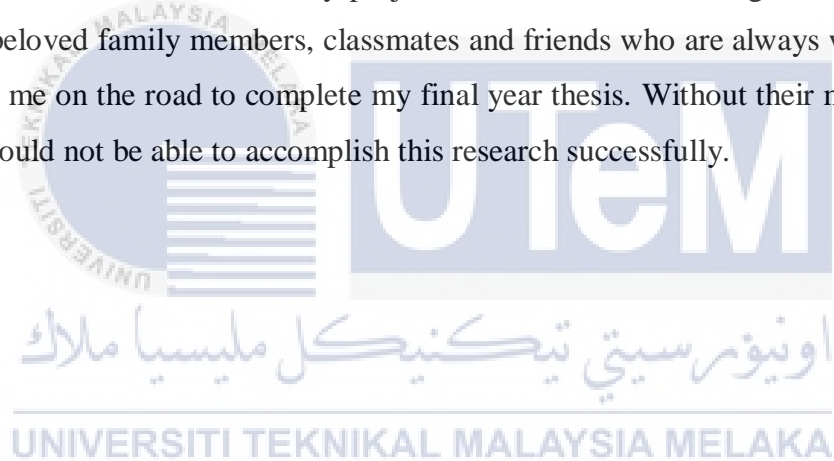
## DEDICATION

I would like to express my deepest appreciation to my precious family members who have always aided and inspired me all the time in various spiritual, economical, and motivational ways. In addition, I would also like to devote my sincere gratitude to my beloved supervisor, Ts. Dr. Nurulizwa Binti Abdul Rashid, who are willing to spend much time and patiently guided me in the whole process of this research and my classmates/friends who share their knowledge during the study. Without their blessing and support, this study is difficult to complete.



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## ABSTRACT

Throughout the Coronavirus (COVID-19) endemic, most physical stores or drugstores have been allowed to accept the presence and entry of customers into business premises in large numbers. Nevertheless, they still need to follow the SOPs that have been issued throughout the COVID-19 endemic. For those who remain running their drugstore business, it is even more important if they convert their drugstores to online ordering services, provide their own check-out kiosks and order from outside the business premises especially during the COVID-19 endemic. Thus, this study will explore indirect factors from system quality, information quality, service quality and social influence and customer satisfaction to use self-checkout kiosk at Watsons during the COVID-19 endemic. In addition, the convenience of using self-checkout kiosk and the desire to use self-checkout kiosk will also be discussed in this research where to improve the information and knowledge of the study. In completing the study of this research project, quantitative methods were selected for data collection and the Statistical Package from the Social Science (SPSS) Version 29 will be used to analyze the data. The constructed questionnaire will be distributed to 150 target respondents who used self-checkout kiosk at Watsons during the COVID-19 endemic with URLs or Google Forms links via WhatsApp, Telegram, Facebook, and other network-based apps. By analyzing the data collected from the target population, significant findings indicate that the four independent variables have a variable-dependent relationship and benefits to customer satisfaction when they use self-checkout kiosks at Watsons during the COVID-19 endemic.

*Keywords – System quality, Information quality, Service quality, Social influence, COVID-19 endemic, Convenience of using self-checkout kiosk, Desire to use self-checkout kiosk, Customer satisfaction, SPSS.*

## ABSTRAK

Sepanjang endemik Coronavirus (Covid-19), kebanyakan kedai fizikal atau kedai ubat telah dibenarkan menerima kehadiran dan kemasukan pelanggan ke dalam premis perniagaan dengan jumlah yang ramai. Namun begitu, mereka masih perlu mengikut SOP yang telah dikeluarkan sepanjang endemik COVID-19. Bagi mereka yang kekal menjalankan perniagaan kedai ubat mereka, adalah lebih penting jika mereka menukar kedai ubat mereka kepada perkhidmatan pesanan dalam talian, menyediakan kiosk daftar keluar sendiri dan memesan dari luar premis perniagaan terutamanya semasa endemik COVID-19. Justeru, kajian ini akan meneroka faktor tidak langsung daripada sistem kualiti, maklumat berkualiti, kualiti perkhidmatan dan pengaruh sosial serta kepuasan pelanggan untuk menggunakan daftar keluar sendiri di Watsons semasa endemik COVID-19. Selain itu, kemudahan menggunakan kiosk daftar keluar sendiri dan keinginan untuk menggunakan kiosk daftar keluar sendiri juga akan dibincangkan dalam penyelidikan ini di mana untuk menambah baik maklumat dan pengetahuan kajian. Dalam menyiapkan kajian projek penyelidikan ini, kaedah kuantitatif telah dipilih untuk pengumpulan data dan Pakej Statistik dari Sains Sosial (SPSS) Versi 29 akan digunakan untuk menganalisis data. Soal selidik yang dibina akan diedarkan kepada 150 responden sasaran yang menggunakan daftar keluar sendiri di Watsons semasa endemik COVID-19 dengan pautan URL atau Borang Google melalui WhatsApp, Telegram, Facebook dan aplikasi berasaskan rangkaian lain. Dengan menganalisis data yang dikumpul daripada populasi sasaran, penemuan penting menunjukkan bahawa empat pembolehubah tidak bersandar mempunyai hubungan bergantung kepada pembolehubah dan faedah kepada kepuasan pelanggan apabila mereka menggunakan kiosk daftar keluar sendiri di Watsons semasa endemik COVID-19.

*Kata Kunci - Kualiti sistem, Kualiti maklumat, Kualiti perkhidmatan, Pengaruh sosial, endemik COVID-19, Kemudahan menggunakan kiosk daftar keluar sendiri, Keinginan untuk menggunakan kiosk daftar keluar sendiri, Kepuasan pelanggan, SPSS.*



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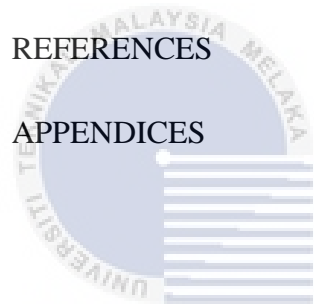
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## LIST OF ABBREVIATIONS

| ABBREVIATION | MEANING                                |
|--------------|--|
| IV           | Independent Variables                  |
| DV           | Dependent Variable                     |
| SPSS         | Statistical Package for Social Science |
| COVID-19     | Coronavirus 2019                       |
| SST          | Self-service Technology                |
| SSK          | Self-service Kiosk                     |
| IQ           | Information Quality                    |
| SQ           | System Quality                         |
| SerQ         | Service Quality                        |
| CS           | Customer Satisfaction                  |



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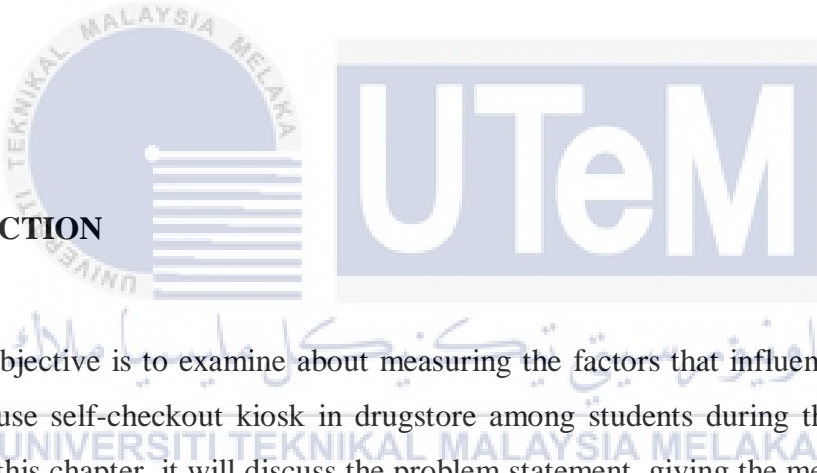




# CHAPTER 1

## INTRODUCTION

### 1.0 INTRODUCTION



This research objective is to examine about measuring the factors that influencing customer satisfaction to use self-checkout kiosk in drugstore among students during the endemic of COVID-19. In this chapter, it will discuss the problem statement, giving the meaning of Self-Checkout Kiosk and Watsons. In addition, from this chapter, it will involve the objectives of the study and the research questions along with the scope of the study, importance, and limitations of the study. The number of self-checkout kiosks is limited and only available at some drugstores. This study was also conducted to find out the main factors of customers using this checkout kiosk and why this kiosk is not widely placed in other stores. Also, are Watsons customers aware of the existence of this self-checkout kiosk?

## 1.1 Background of Study

### 1.1.1 Definition of Self-Checkout Kiosk

The self-checkout kiosk allows customers to scan items via barcodes and pay for their purchases without the need for the help of store employees. Self-checkout kiosks can help retailers save costs while delivering a better customer experience (Ben Dwyer, 2019). Self-check-out machines issue traditional staff check-out. Self-checkout is usually used in supermarkets and some drugstore in Malaysia. One or two staff oversee the checkout area themselves to assist customers in case of problems (Cem Dilmegani, 2022). There are also some convenience stores that have been using their own checkout kiosk in their stores for a number of years. This self-checkout kiosk can provide many benefits to store owners as well as to their customers. Among the benefits are shorter queues for customers and faster payment processes, greater accuracy, reduced labor costs, enhanced customer privacy, enhanced customer experience and satisfaction, and better in-store optimization due to the availability of new spaces queue reduction.

In 2020, DXC technology together with Harting Systems and Murata has launched its own RFID-based payment counter. It has made it easier for retailers to label all their products using only RFID tags. RFID (Radio Frequency Identification) is a combination of radio frequency technology and microchip technology, and as an alternative to barcodes microchipped in tags to store and transmit detailed information about tagged items. The number of RFID applications in everyday life is due to the convenience it provides, one of which is the self-checkout system. It means customers can place their shopping bags at the check-out counter and allow them to scan all the products they want to buy and the counter will display a full list of products and total prices according to the products that have been selected or scanned by the user. This technology can help customers by reducing the time spent for the entire payment experience by just 30 seconds.

Therefore, all items in a store need to be tagged with RFID tags and these potentially expensive payment machines need to be installed in the store to ensure this technology works while customers use it. However, there are also shops without check-out. Stores without check-out are a different approach to self-service payments. In this approach, customers do not queue to scan their goods. The products they pick up are identified, and bills are routed to their phones automatically.

### 1.1.2 Watsons in Malaysia



Figure 1.1.2.1 Watsons Store

The Health and Beauty Store chain of A.S Watson, the biggest retailer of health, beauty, cosmetics, and fragrances in the world, includes Watsons Personal Care Stores (Malaysia) Sdn. Bhd. Watsons works to provide Malaysian consumers with glitzy, healthy beauty solutions using its strong retail knowledge. More than 500 Watsons outlets are currently run by Watsons Malaysia in the nation, servicing more than 4 million customers each month. With personalised advice and counselling in health, beauty, and personal care in addition to its market-leading product lines, Watsons continues to set the bar in the health, wellness, and beauty sector, helping consumers LOOK GOOD, FEELGREAT every day. For the ninth year in a row starting in 2009, Watsons has been the top pharmacy/drugstore brand in Asia Pacific.

Many businesses, including the retail industry, have been impacted since the COVID-19 epidemic decimated the global economy in 2020. Watsons is one of the afflicted retail companies, however compared to other companies that have been severely impacted by COVID-19, Watsons has spared the worst of the harm because it is regarded as a solid retail company. Due in large part to the tremendous support from its clients and the community, Watson has been able to withstand these trying times. With more than 8100 outlets and 1500 pharmacies in 16 Asian and European markets, Watsons is one of the biggest health and beauty chain stores in Asia. Through its international operations, Watsons is devoted to improving the globe.

### 1.1.3 Self-Checkout Kiosk in Malaysia

The services sector is the largest mainstream in Malaysia's GDP, generating significant direct and indirect effects on Malaysia's GDP. The Malaysian retail industry is driven by rising disposable income, consumer confidence and an increase in high-net-worth individuals (Euromonitor, 2015). The main challenge for the Malaysian grocery store or drugstore industry is to strengthen the spending power of customers and the level of patronage with the development of another existing grocery store or drugstore. Malaysia which is considered as an upper middle-income country and a consumer -driven economy is important to understand the current behavior of consumers and every pattern of consumer spending in the country. This is to understand and find out where the Malaysian economy is headed and what consumers expect from the market.

Customer behavior reflects market response as well as the performance of the retail business. Customer satisfaction is a great value to companies to provide better service to customers and maintain their competitive advantage (Ranjbarian B, Sanayei A, Kaboli M R, Hadadian A., 2012). Retailers should also be convinced that new technologies provide great opportunities to foster deeper and more loyal relationships with new and existing customers, while hunting for greater margins as retailers seek to reduce or redistribute staff and reduce working hours. Service quality needs to be strengthened with the help of technology. Self -check -out technology can be a viable solution to reduce costs, increase productivity and reach new customer segments (Orel F D, Kara A., 2014).

Consumers prefer to use self-checkout counters when they expect shorter check-out times at self-checkout counters than non-consumers. According to Dabholkar P A. (1997), ease of use of self-service technology is associated with reducing potential social risks and spending less effort. Because people are generally not equipped with the necessary skills and confidence, clients may feel apprehensive about the extra effort expected in terms of physical and mental effort that causes them to avoid self -service (Lee H J, Yang K., 2013). Reliability refers to how the SST consistently and accurately performs the expected task. Pleasure is something that intrinsically arises from interacting with choice and self-control as “total take advantage of what the customer feels he has over the process or outcome”.

However, self-service kiosks in Malaysia are also growing such as self-service kiosks to buy public transport tickets, kiosks to change new bank cards, self-checkout kiosks at

supermarkets such as Lotus, and self-service kiosks at fast food restaurants such as McDonald's. However, self-service kiosks in drugstores such as Watsons are still not widely available in Malaysia and as a result, not many consumers still know about self-service kiosks in drugstores.



Figure 1.1.3.1: Watson Self-Checkout Kiosk

Figure 1.1.3.1 shows Watson's self-checkout kiosk in Malaysia. Usually, this self-checkout kiosk is placed next to the cashier counter. In addition, staff will always be on duty in the kiosk area and assist customers in case they need staff assistance to scan barcodes and make payments. Payment for this kiosk is by card and does not accept cash payments. Customers who have scanned the barcode of the product of their choice can put their goods into the plastic that has been provided at the kiosk. It means that the customer has to scan the barcode at the place of scanning, choosing the method of payment either via debit card, credit card. Then, they can put their stuff into the plastic that Watson has provided.

#### **1.1.4 COVID-19 Pandemic Affected**

The coronavirus disease 2019 (COVID-19) pandemic was first identified in Wuhan, China, during December 2019, and by 19 June 2020, there were 8.385 million cases and over 450,000 deaths worldwide giving a case fatality ratio (CFR) among confirmed cases of 5.37% (Mainul et al., 2020). This included over 541,000 confirmed cases in the WHO South East Asian Region (Mainul et al., 2020). The COVID-19 pandemic is a global disaster that has a significant influence on numerous industries and, as a result, the national economy. It is a virus that has spread around the planet and has the potential to kill humans. Since January 2020, the number of confirmed cases in Malaysia has gradually climbed.

Due to an upsurge in COVID-19 infection cases in Malaysia since March 2020, the government has announced the implementation of the Movement Control Order (MCO) to combat the virus's propagation through social incarceration. The MCO announcement also resulted in limits on public closures and the closure of several companies. As a result, the COVID-19 epidemic impacted numerous areas of the national economy (Che Omar et al., 2020). The COVID-19 epidemic is a long-term problem for people all across the world because there isn't enough time to stop it from spreading to the general public.

Moreover, a coronavirus pandemic (COVID-19) is a major disruptive event that has impacted global economies and unsettled several value networks (Nicola, M. 2020). Analyzing the implications and effects of such disruptions on businesses is an important application aspect of data analytics, particularly in the area of retail supply chain management (SCM) (Chibuzor et al., 2020). The impact of the COVID-19 epidemic transcends across businesses and organizational domains including education, healthcare, tourism, retail, manufacturing, logistics, etc. Specifically, for the retail sector, several studies have been conducted to analyze the impact of COVID-19.

The COVID-19 pandemic has also been one of the largest disruptive events in recent decades and has a global impact on society and the economy. Political regulation as a result of COVID-19 also led to significant changes in physical retail shopping (Patrick et al., 2021).



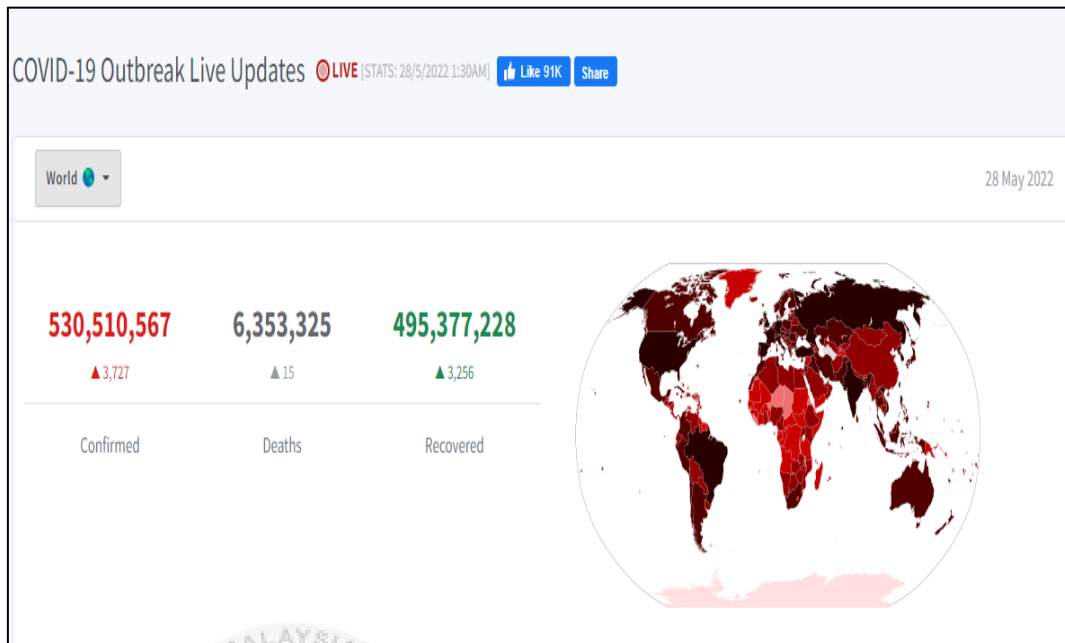


Figure 1.1.4.1 Covid-19 Outbreak World Live Update

Figure 1.1.4.1 shows the statistics of confirmed COVID-19 infection cases, recovered cases and deaths worldwide due to the Outbreak.MY updated as of May 28, 2022. However, on April 1, 2022, Malaysia entered an endemic phase. It is possible thanks to the effectiveness of the COVID-19 vaccination programme and a well-managed health-care system. The Declaration of Local Infectious Areas, enacted under Section 11 of the Prevention and Control of Infectious Diseases Act 1988 [Act 342], is still in effect across Malaysia until June 30, 2022. COVID-19 infection control and prevention measures are also implemented under the provisions of the Prevention and Control of Infectious Diseases (Measures in Local Areas of Infection) (National Rehabilitation Plan) (Transition to Endemic Phase) Regulations 2022 [PU (A) 83/2022], which were gazetted on March 31, 2022.

### 1.1.5 POLICY (SST Push)

A national supermarket retailer recently announced the removal of self-service checkouts from its store layouts, citing a desire to improve customer experiences by increasing customer–employee interaction (Anand 2011). The issue with such a policy change is that a large number of customers have expressed dissatisfaction with this type of self-service technology (SST). While existing research identifies a number of customer and technology characteristics that impede or prevent successful SST implementation (e.g., Dabholkar and Bagozzi 2002; Meuter et al. 2005; Parasuraman 2000), it's possible that customers will react negatively to the policies that enact SST implementation rather than the technology itself.

Customers' perceptions of policy fairness are important in their evaluations of service experiences, according to previous research (Blodgett and Hill 1997; Schneider and Bowen 1999), which forces academics and practitioners to focus on customer reactions to the retailer's approach to encouraging SST adoption.

Customers' satisfaction with a provider, as well as resulting behavioural intentions, can be influenced by procedural fairness perceptions (Kukar-Kinney, Xia, and Monroe 2007; Maxham and Netemeyer 2003; Ringberg, Odekerken-Schröder, and Christensen 2007). As a result, customer responses to businesses are largely determined by the perceived fairness of policies such as checkout and product return procedures. Many merchants use policies that encourage customer adoption of self-service technology solutions, such as self-checkout lanes and bill-payment kiosks, in order to reduce costs and improve operational efficiency (e.g., Curran, Meuter, and Suprenant 2003; Verhoef et al. 2009). While few shops expressly force customers to utilise SST, customers are given a subtle "push" to use SST rather than a full-service option. The restriction of full-service alternatives or even fines for choosing full service could be part of this SST effort.